AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A <u>computer</u> system for generating an <u>dimensional</u> enhanced data grouping, comprising:

an input interface receiving ~~clinically relevant source~~<u>transactional clinical</u> <u>records</u>~~data~~ comprising data generated by a hospital, a laboratory or an insurer;

a set of rules; and

a data enhancement layer, communicating with the input interface and the set of rules,

the data enhancement layer generating ~~an~~ <u>dimensional</u> enhanced data grouping based on the <u>transactional clinical records</u>~~clinically relevant source~~ data and the set of rules,

<u>the enhanced data grouping comprising at least one of the transactional clinical records and at least one extended dimension appended to the at least one of the transactional clinical records; and</u>

<u>a storage component for storing the dimensional enhanced data group.</u>

2. (Currently Amended) A system according to claim 1, wherein ~~the clinically relevant source data comprises data generated by at least one of a health care provider, a hospital, an insurer and a laboratory.~~<u>the extended dimension comprises attributes, variables, or quantities.</u>

3. (Original) A system according to claim 1, wherein the set of rules comprises a set of user-defined rules.

4. (Currently Amended) A system according to claim 1, wherein the set of rules comprises a set of rules based on at least one autocorrelation function executed on the transactional clinical records clinically relevant source data.

5. (Currently Amended) A system according to claim 1, wherein the data enhancement layer comprises a server configured to generate and store the dimensional enhanced data grouping.

6. (Cancelled)

7. (Currently Amended) A system according to claim 6 1, wherein the transactional clinical records comprise data specific to at least one of a patient, a provider, a test result, and an order the extension to the clinically relevant source data comprises at least one extended dimension appended to the clinically relevant source data.

8. (Currently Amended) A system according to claim 7 1, wherein the at least one extended dimension comprises a recombination of transactional clinical records clinically relevant source data based on selected source data record attributes.

9. (Currently Amended) A system according to claim 7 1, wherein the at least one extended dimension comprises multiple extended dimensions.

10. (Currently Amended) A system according to claim 1, wherein the transactional clinical records the clinically relevant source data comprises at least one of

hierarchical source data~~records~~ and multidimensional source data~~records~~.

11. (Currently Amended) A system according to claim 10, wherein the data enhancement layer processes both hierarchical <u>transactional clinical records</u> ~~source data~~ and multidimensional <u>transactional clinical records</u>~~source data~~.

12. (Currently Amended) A system according to claim 1, wherein the data enhancement layer stores the <u>dimensional</u> enhanced data grouping to a transactional data store.

13. (Currently Amended) A system according to claim 12, wherein the <u>dimensional</u> enhanced data grouping is communicated to a datamart.

14. (Original) A system according to claim 13, wherein the datamart is configured to receive queries.

15. (Original) A system according to claim 14, wherein the queries comprise standard query language queries.

16. (Currently Amended) A method for generating ~~an~~ <u>dimensional</u> enhanced data grouping, comprising:

receiving <u>transactional clinical records</u> ~~clinically relevant source data~~ <u>comprising data specific to a patient</u>;

accessing a set of rules; and

generating an enhanced data grouping based on the <u>transactional clinical records</u>~~clinically relevant source data~~ and the set of rules;

the enhanced data grouping comprising at least one of the transactional clinical records and at least one extended dimension appended to the at least one of the transactional clinical records.

17. (Currently Amended) A method according to claim 16, wherein the extended dimension comprises attributes, variables, quantities, or other objects the clinically relevant source data comprises data generated by at least one of a health care provider, a hospital, an insurer and a laboratory.

18. (Original) A method according to claim 16, wherein the set of rules comprises a set of user-defined rules.

19. (Currently Amended) A method according to claim 16, wherein the set of rules comprises a set of rules based on at least one autocorrelation function executed on the transactional clinical records the clinically relevant source data.

20. (Currently Amended) A method according to claim 16, wherein the transactional clinical records comprise data generated by at least one of a hospital, a laboratory, an university, a military or other government installation, and an insurer generating the enhanced data grouping comprises generating an extension to the clinically relevant source data.

21. (Currently Amended) A method according to claim 2016, wherein the transactional clinical records comprise data specific to at least one of a patient, a provider, an event, a test result, an order, an encounter, and an administrative or medical process.the generating an extension to the clinically relevant source data comprises appending at least one extended dimension to the clinically relevant source data.

22. (Currently Amended) A method according to claim 21 16, wherein the appending at least one extended dimension comprises generating a recombination of the transactional clinical records clinically relevant source data based on selected source data record attributes.

23. (Currently Amended) A method according to claim 21 16, wherein the appending at least one extended dimension comprises appending multiple extended dimensions.

24. (Currently Amended) A method according to claim 16, wherein the transactional clinical records the clinically relevant source data comprises at least one of hierarchical source data records and multidimensional records source data.

25. (Currently Amended) A method according to claim 16, wherein the generating an enhanced data grouping comprises processing both hierarchical source data transactional clinical records and multidimensional transactional clinical record source data.

26. (Currently Amended) A method according to claim 16, further comprising storing the dimensional enhanced data grouping to a transactional data store.

27. (Currently Amended) A method according to claim 26, further comprising communicating the dimensional enhanced data grouping to a datamart.

28. (Original) A method according to claim 27, wherein the datamart is configured to receive queries.

29. (Original) A method according to claim 28, wherein the queries comprise standard query language queries.

30. (Currently Amended) A computer system for generating an dimensional enhanced data grouping, comprising:

input means for receiving ~~clinically relevant source data~~ transactional clinical records generated by a medical facility;

rules means for storing a set of rules; and

data enhancement means, communicating with the input means and rules means, the data enhancement means generating ~~an~~ dimensional enhanced data grouping based on ~~the clinically relevant source data~~at least one of the transactional clinical records and the set of rules, the enhanced data grouping comprising at least one of the transactional clinical records and at least one extended dimension appended to the at least one of the transactional clinical records; and

a storing means for storing the dimensional enhanced data grouping.

31. (Currently Amended) A system according to claim 30, wherein ~~the enhanced data grouping comprises an extension to the clinically relevant source data~~the transactional clinical records comprise data generated by at least one of a hospital, a laboratory, an university, a military or other government installation, and an insurer.

32. (Currently Amended) A system according to claim 3130, wherein ~~the extension to the clinically relevant source data comprises at least one extended dimension appended to the clinically relevant source data~~the transactional clinical records comprise data specific to at least one of a patient, a provider, an event, a test result, an order, an encounter, and

an administrative or medical process.

33. (Currently Amended) A system according to claim ~~32~~30, wherein the at least one extended dimension comprises a recombination of ~~clinically relevant source data~~the transactional clinical records based on selected ~~source data~~record attributes.

34. (Currently Amended) A system according to claim ~~32~~30, wherein the at least one extended dimension comprises multiple extended dimensions.

35. (Currently Amended) A system according to claim 30, wherein the ~~clinically relevant source data~~transactional clinical records comprises at least one of hierarchical ~~source data~~records and multidimensional ~~source data~~records.

36. (Currently Amended) A system according to claim 30, wherein the dimensional enhanced data grouping is communicated to a datamart.

37. (Original) A system according to claim 36, wherein the datamart is configured to receive queries.

38. (Currently Amended) A[[n]] dimensional enhanced data grouping, comprising:

~~clinically relevant source data~~transactional clinical records, wherein the transactional clinical records comprise data generated by at least one of a hospital, a laboratory, a university, a military or other government installation, and an insurer; and

at least one extended dimension appended to the ~~clinically relevant source data~~at

least one of the transactional clinical records, the at least one extended dimension being generated based on at least one attributes of the ~~clinically relevant source data~~at least one of the transactional clinical records and a set of rules; and

a storing component for storing the extended dimension appended to the at least one of the transactional clinical records.

39. (Currently Amended) A[[n]] dimensional enhanced data grouping according to claim 38, wherein the at least one extended dimension comprises multiple extended dimensions.

40. (Currently Amended) An enhanced data grouping according to claim 38, wherein the ~~clinically relevant source data~~transactional clinical records comprises at least one of hierarchical source ~~data~~ records and multidimensional source ~~data~~records.

41. (Currently Amended) A[[n]] dimensional enhanced data grouping according to claim 38, wherein the dimensional enhanced data grouping is communicated to a datamart.

42. (Currently Amended) A[[n]] dimensional enhanced data grouping according to claim 41, wherein the datamart is configured to receive queries.

43. (Currently Amended) A queryable datamart, comprising:

~~an~~ dimensional enhanced data grouping, the dimensional enhanced data grouping comprising~~-~~

~~clinically relevant source data~~transactional clinical records generated by at least

one of a hospital, laboratory and insurer; and

at least one extended dimension appended to the ~~clinically relevant source data~~at least one of the transactional clinical records, the at least one extended dimension being generated based on at least one attributes of the ~~clinically relevant source~~ ~~data~~transactional clinical records and a set of rules; ~~and~~

an interface to a query engine to interrogate the dimensional enhanced data grouping~~; and~~

a storage component for storing the enhanced data grouping.

44. (Original) A datamart according to claim 43, wherein the query engine comprises a standard query language engine.

45. (Original) A datamart according to claim 43, further comprising a user interface communicating via a network with the query engine.